

## ABSTRACT OF THE DISCLOSURE

Disclosed are methods for predicting the mobility of mobile nodes in third generation and beyond wireless, mobile access Internet protocol-based data networks embodying IETF Mobile IP support, as well as in wireless LANs. Conventional Mobile IP mobility detection is replaced with deterministic, stochastic, and/or adaptive methods to predict the mobility of a mobile node in the network employing network logic layer (L3) packet latency characteristics. The method is useful for providing pre-notification that a communication hand-off condition is imminent to enable fast route pre-establishment and reduced packet latency, and for optimizing quality of service by facilitating selection of best base station transceiver in overlapping cell environments, among other applications.

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